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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/749,445

12/31/2003

Bernd Lenz

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04/11/2005

QUARLES & BRADY LLP

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SUITE 2040

MILWAUKEE, WI 53202-4497

EXAMINER

JULES, FRANTZ F

ART UNIT

PAPER NUMBER

3617

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/749,445

Applicant(s)

LENZ, BERND

Examiner

Frantz F. Jules

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 2, 7 are objected to because of the following informalities:

In claim 2, line 3, the phrase "a capacitor that then" should be deleted to improve the clarity of the claim language.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 8-9, 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagel (US 4,619,425).

Nagel discloses a method for the transmission of information between a track and a vehicle located on the track in a model railroad system as disclose in col 1, lines 6-12, said method comprising using at least one capacitor that exists between the vehicle and the track for the transmission of information in the event of a loss of electrical contact between the vehicle and the track since Nagel discloses in col 1, lines 23-23 existing use of capacitors between the track and the rail, and detecting the information transmitted via said capacitor.

### ***Claim Rejections - 35 USC § 103***

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagel (US 4,619,425).

Regarding using a plurality of capacitors including additional contact pick-up areas as recited in claims 3 and 10, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nagel to include the use of a plurality of capacitors including additional contact pick-up areas in his advantageous system, as the duplication /reduction of identical parts which perform essentially the same function is a common occurrence throughout the switch box for railway design arts, and the specific number of capacitors and contact areas used would have been an obvious duplication of parts, depending upon such common factors as the load rating of the capacitors, the targeted speed of the train, the length of the vehicle; the ordinarily skilled artisan choosing the best number of capacitors and contact areas which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria.

6. Claims 4-7, 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagel (US 4,619,425) in view of Brown et al (US 5,485,977).

Nagel teaches all the limitations of claims 4-7 except for a model railroad train comprising square wave voltage information signal and evaluating superimposed spikes

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from the capacitors. The general concept of providing square wave voltage information signal and evaluating superimposed spikes from the capacitors to a method of transmitting information is well known in the art as illustrated by Brown et al which Discloses the teaching of square wave voltage information signal and evaluating superimposed DC voltage spikes from the capacitors in col 1, lines 9-49, col 2, lines 29-41. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nagel to include the use of square wave voltage information signal and evaluating superimposed voltage spikes from the capacitors in his advantageous method of Transmission of information system as taught by Brown et al in order to provide a clean sine wave which produce sufficiently reduced low harmonic-frequency spectral pollution from other noise.

#### Claim 13

Regarding using an AC voltage source as recited in claim 13, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nagel and Brown et al to include the use an AC voltage source in his advantageous system, as input power supply source is a common and everyday occurrence throughout the method of transmission of information design art and the specific use of an AC voltage source would have been an obvious matter of design preference depending upon such factors as the electrical loading rating of the capacitors, the targeted speed of the train, the available energy source; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the capacitors which would most optimize the cost and performance of the system for a particular application

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at hand, based upon the above noted common design criteria.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Lenz, Laurent et al, Mimoun and Jaeger are cited to show related method of transmission of information to a vehicle by supplying information through the tracks.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 308-8780. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

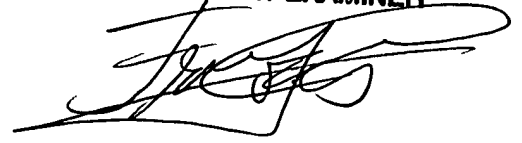
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Frantz F. Jules  
Primary Examiner  
Art Unit 3617

FFJ

March 30, 2005

FRANTZ F. JULES  
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Frantz F. Jules', written over the printed name and title.